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TRANSMITTAL LETTER

Application No.: 10/535,438

To: Commissioner for Patents
   USPTO Technology Center 2800
   Supervisory Patent Examiner: John Barlow
   Examiner: Cindy D. Khuu

From: TSUJI, Katsumi
Applicant/Inventor

Subject: Additional Reply
for Advisory Action Before the Filling of an Appeal Brief
(USPTO Confirmation No. 6160, Art Unit 2863)
(Mailing Date: 01/08/2007)

Dear Sirs.
I am pleased to send the following items enclosed to USPTO Examination.

Items for Application No. 10/535,438:   Number of Pages

1. Additional Reply for Advisory Action (Mailing Date: 01/08/2007)---- 2
2. Claim Listing-- 1
3. Amended Claims of Application sheet : Page No. 8 --------------------- 1

Total 4 Pages

Please find out and receive the above enclosures.
Best Regards.

Place/Date: Tokyo/ Feb. 01, 2007
Signature: *Katsumi Tsuji*
Name: TSUJI, Katsumi

Additional Reply
for Advisory Action Before the Filing of an Appeal Brief,
Mailing Date : 01/08/2007

Art Unit: 2863
USPTO Confirmation No. 6160,
Examiner : Cindy D. Khuu
Application No. : 10/535,438
Reply by Applicant TSUJI, Katsumi

1. Additional Reply to the previous Reply of Jan.22, 2007

Applicant has considered to increasing the persuasion respect to the 35 U.S.C. 101.
And I would like to replace the step of "c." of Claim 1 which amended and submitted on Jan. 22, 2007 with the following :

" c. ~~determing~~ <u>determining</u> the dynamic unbalance of the correction planes of the rotor by <u>the resultant vectors which the component vectors of</u> the unbalance centrifugal forces at the two bearings ~~of rotating machinet~~ ~~transferring~~ <u>transferred</u> to the correction planes of the rotor, with the geometric vector calculation based on the statics which is using with the ratios concerning the relative distance lengths for the bearings of rotating machine and the two correction planes of rotor. "

Remarks : These new amended words with underline are consisting with the Best Mode of carrying out the invention in the specification of the Application as follows,

1. <u>the resultant vectors</u> is cited from Par.14, line 5 .
2. <u>the component vectors of</u> is cited from Par. 15, line 1.
3. <u>transferred</u> is cited from Par. 1, line 5.

2. Explanation of particular features of this invention

A. Comparison for the features to Prior Art :

As showing in Prior Art of this Specification of Application, Applicant understands Claim 1 of this invention is equivalent to a new Field Balancing Method to the rigid rotor of the industrial rotating machine. The following comparison table:TABLE-1 shows the main differences of features for Prior Art of Field Balancing and this invention.

TABLE-1: Comparison for Field Balancing

Prior Art	This invention
1. Measuring of the initial displacements of vibration at the bearings of the industrial rotating machine.	1. Same manner of Prior Art
2. Measuring of the changed displacements of vibration due to trial masses attached on the rotor.	2.------------not necessary---------------
3. -------------not applied-----------------	3. Calculation the <u>unbalance centrifugal forces</u> at the bearings by <u>equation of</u>

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4. Determining the dynamic unbalance in rotor by vector calculation using with Influence Number or Complex Number*1. (nothing to using with any distance ratios.)

*1 : e.g. "Fundamentals of Vibration Analysis", N.O.Myklestad,

motion based on the initial displacements measured.

4. Determining the dynamic unbalance in rotor by the geometric and transferring vector calculation using with the distance ratios, based on the statics .

Note : The underlined words in the above expressions are cited from the "Best Mode of carrying out the invention" of the Specification of Application.

Summery :

Prior Art	This invention
Prior Art vector calculation means: To comparing with the both vectors of trial masses and the initial conditions.	The inventive geometric vector calculation means : To transferring the unbalance centrifugal forces at the bearings to the correction planes of rotor.

B. Features of Claims

Claim 1 shows that the features of this invention are no-trial runs and no-trial masses, and using with the inventive geometric and transferring vector calculation method instead of Influence Number or Complex Number*1 in Field Balancing.

And Claim 2 means that the geometric and transferring vector calculation method of this invention is possible to apply the usual standard balancing machine and testing facilities for a alternative calculation method, ref. Reply for Office Action Summery, Feb. 16, 2006, P.2, and P.4.

Place/Date : Tokyo / Feb.01, 2007
Applicant / Inventor:

Signature: *Katsumi Tsuji*
Name: TSUJI, Katsumi